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# **KODAK DVC325**

## **Digital Video Camera**



## **User's Guide**

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# Table of Contents

|  | <i>Page</i> |
|--|-------------|
| Introduction .....   | 1           |
| The KODAK DVC325 Digital Video Camera .....  | 1           |
| Package Contents .....   | 2           |
| The DVC325 .....   | 3           |
| Minimum System Requirements .....  | 4           |
| Hardware Requirements .....  | 4           |
| Software Requirements .....  | 4           |
| Audio Recording Requirements .....   | 5           |
| Video Conference Requirements .....  | 5           |
| Camera Specifications .....  | 6           |
| Installation .....   | 7           |
| Installing the Software .....  | 7           |
| Connecting the Camera .....  | 9           |
| Adjusting the Monitor .....  | 9           |
| Camera Mount Locations .....   | 10          |
| Capturing Pictures and Videos .....  | 11          |
| Software Applications .....  | 11          |
| Software Overviews .....   | 11          |
| PRESTO! VIDEOWORKS Software .....  | 12          |
| PRESTO! MR. PHOTO Software .....   | 13          |
| Microsoft NETMEETING Software .....  | 15          |
| KODAK TWAIN Acquire Software .....   | 16          |
| Acquiring a Picture Using the DVC325 and the KODAK TWAIN<br>Acquire Software ..... | 17          |
| Using Your Own Imaging Applications .....  | 18          |

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|  |    |
|--|----|
| Taking Better Pictures .....                 | 19 |
| Steadiness and Composition .....             | 19 |
| Lighting .....                               | 20 |
| Color Balance .....                          | 20 |
| Troubleshooting and Maintenance .....        | 21 |
| Troubleshooting .....                        | 21 |
| Maintenance and Safety .....                 | 25 |
| Maintenance .....                            | 25 |
| Safety .....                                 | 25 |
| Help and Service .....                       | 27 |
| Online Services .....                        | 27 |
| FAX Information .....                        | 27 |
| Application Software Support Companies ..... | 28 |
| KODAK Customer Support .....                 | 29 |
| Warranty and Regulatory Information .....    | 31 |
| Warranty .....                               | 31 |
| Warranty Time Period .....                   | 31 |
| Warranty Repair Coverage .....               | 31 |
| Limitations .....                            | 32 |
| How to Obtain Service .....                  | 33 |
| Regulatory Information .....                 | 33 |
| FCC Compliance and Advisory .....            | 33 |
| Canadian DOC Statement .....                 | 34 |

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# *Introduction*

## **The KODAK DVC325 Digital Video Camera**

The KODAK DVC325 Digital Video Camera packs power, fun, and surprising image quality into one compact computer camera. The DVC325 is the easy, fun way to capture and share digital pictures and videos. The camera is small and light enough to be used as a hand-held unit. A USB interface processes data up to 10 times faster than serial interfaces. It makes video conference pictures sharper and smoother. Bundled with the camera are software applications that let you create slide shows, organize and store your photos, add pictures to e-mail, and even star in your own videos!

With the DVC325 you get:

- **Brilliant High-Quality Images**  
With the DVC325 you get still and video captures up to 640 x 480 pixel resolution or up to 30 frames per second. That means you will enjoy smooth video and eye-catching image quality.
- **The Power of Internet Video Conferences**  
Make Internet video conferences a breeze with bundled Microsoft NETMEETING software and the USB interface. You do not need a video capture board!
- **Easy-To-Use Software Expands the Fun**  
The DVC325 comes with two Presto! software applications that give you more fun and greater productivity. You can store and organize pictures, add pictures and video to e-mail and create slide shows. You can even create professional quality videos that include text, video and audio special effects.
- **Adhere-Anywhere Flexibility**  
The mounts let you attach the DVC325 to a monitor, laptop, or any surface that suits your needs.
- **Wide Tilt Range Movement**  
The DVC325 lets you get the picture with a generous tilt range of up to 75°. You will be able to capture more and communicate better.

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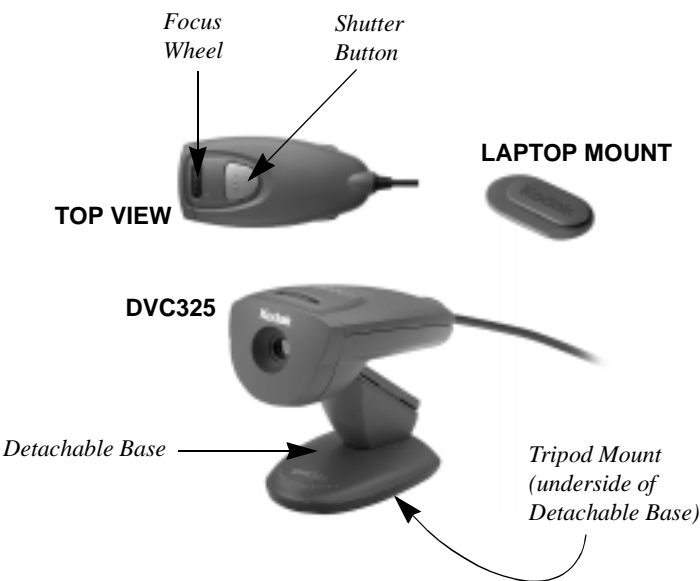
## Package Contents



The DVC325 package contains the following items.

- DVC325 camera with an integrated Universal Serial Bus (USB) cable and a detachable base
- Laptop mount
- DVC325 Software CD
- User's Guide
- Quick Set Up Guide
- Registration/Warranty card

Note: Save all packing material in case you need to pack and ship the camera during its warranty period.

# The DVC325



| Camera Part     | Description   |
|-----------------|---|
| Shutter Button  | Press the shutter button to take pictures. You can also take pictures using the software applications.  |
| Focus Wheel     | Use the focus wheel to adjust the lens and sharpen the image you are capturing from 4 in. (10.2 cm) to infinity.<br><br>Turn the focus wheel toward the  to focus on a close image. Turn the focus wheel toward the  to focus on an image at a distance. |
| Detachable Base | Remove the base for hand-held or laptop mount operation.  |
| Laptop Mount    | Attach the laptop mount to a laptop PC or flat screen monitor. Then attach the camera to the mount for added flexibility.   |
| Tripod Mount    | For added stability, attach the camera to a tripod.   |

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## Minimum System Requirements

To use the DVC325, the computer must have the following minimum hardware and software requirements. Additional requirements are necessary for recording audio and for video conferences.

### Hardware Requirements

|                 |   |
|-----------------|---|
| Processor       | a 166 MHz Pentium MMX processor or faster             |
| Hard disk space | 150 MB  |
| Display         | a 16-bit high color display with 800 x 600 resolution |
| Interface port  | a Universal Serial Bus (USB)                          |

### Software Requirements

|                  |  |
|------------------|--|
| Software         | Windows 95 OSR2.1 or Windows 98                  |
| Available RAM    | 16 MB or more                                    |
| Video memory RAM | 2 MB   |
| CD-ROM           | Any speed CD-ROM drive for software installation |

#### Notes:

- Check the system properties to determine which version of Windows you are running. For Windows 95 OSR2.1, the computer should display the number 4.00.950B.
- The DVC325 and its USB interface only support Windows 95 and Windows 98. They do not support Macintosh operating systems or Windows NT.
- Check the Kodak web site for future software offerings.



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## Audio Recording Requirements

If you are going to use the DVC325 for recording video clips with sound, the computer system must also contain the following components:

- a microphone
- a 16-bit sound system
- speakers or headphones

## Video Conference Requirements

If you are going to use the DVC325 for video conferences, the computer system must also contain the following components:

- a microphone
- a 16-bit sound system
- speakers or headphones
- a 28.8 KBPS (or better) modem or network card
- an Internet or Network connection

## Camera Specifications

| Item                   |                              | Specification   |
|------------------------|------------------------------|---|
| Imaging electronics    | Image sensor                 | 640(H) x 480(V) pixels, progressive scan color CCD  |
|                        | Sensor resolution            | 640(H) x 480(V) 24-bit color, 16.7 million colors   |
|                        | Picture resolution           | Stills: 640 x 480 pixels (24-bit color)   |
|                        | Video image resolution       | 30 fps @ QCIF (176 x 144)<br>20-25 fps @ CIF (352 x 288)<br>8 fps @ VGA (640 x 480)   |
|                        | Video compression            | proprietary compression in the hardware   |
|                        | File formats                 | 8 bit raw data to output to the computer<br>Video = AVI or MPEG, Audio = WAV,<br>Image = BMP, JPG, TIF, FPX, PCX, or PNG formats<br>that are supported through the bundled software<br>applications |
|                        | Video stream format          | YUV 4:2:0   |
|                        | White balance                | Automatic   |
|                        | Exposure                     | automatic, EV7-EV12   |
|                        | Minimum illumination         | 200 lux   |
|                        | Signal-to-Noise ratio        | 40 dB at 200 lux  |
| Optics                 | Lens                         | Manual focus  |
|                        | Electronic shutter           | Variable speed 1/15, and between 1/30–1/500 second  |
|                        | Lens focal length            | 4.6 mm; f/2.3   |
|                        | Focus range                  | 4 inches to infinity  |
|                        | Field of view                | 50 degrees diagonal   |
|                        | ISO equivalent               | 125   |
| Interface              | Computer interface and cable | a USB 3m cable with a series A connector included   |
|                        | Power                        | the USB interface supplies the power  |
|                        | Power consumption            | capture = <500 mA @ 5V<br>standby = <500 $\mu$ A @ 5V   |
| Physical items         | Height x Width x Depth       | 82 mm x 52 mm x 110 mm (3.2 in. x 2.1 in. x 4.5 in.)  |
|                        | Weight (with the base)       | 207 g, 7.3 oz.  |
|                        | Tripod mount                 | located on a detachable base, using a standard tripod socket  |
|                        | Detachable base              | for hand-held camera operation, within the cable length   |
|                        | Laptop mount                 | the camera can be attached to a detachable laptop mount   |
| Operating temperatures | Temperature                  | 40° to 104° F (4.4° to 40° C)   |
| Others                 | Audio                        | supports simultaneous audio and video capture by means of the audio-enabled Windows system  |
|                        | Certifications               | UL, cUL, FCC Class B, ICES - 003 Class B, CE, VCCI, C-Tick  |
|                        | Warranty                     | 1 year  |

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# Installation

Installation of the KODAK DVC325 Digital Video Camera involves three short steps:

- installing the software
- connecting the camera
- adjusting the monitor

## Installing the Software

To use the DVC325, the following software applications must be installed:

- the TWAIN Acquire software
- the DVC325 device drivers

To install the software:

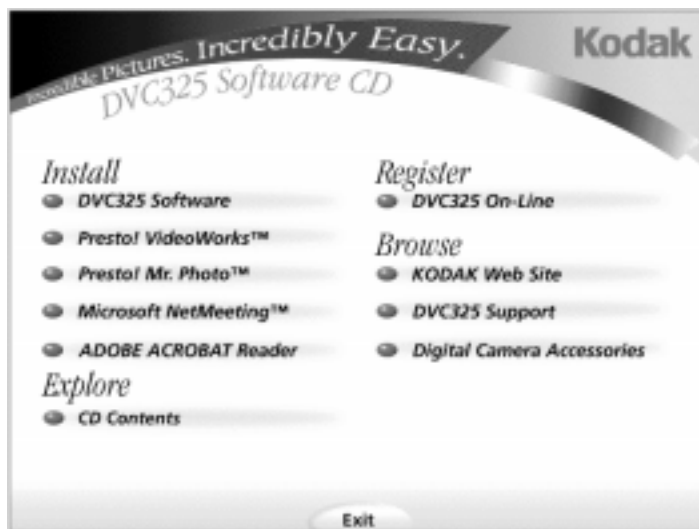
- 1** Close all applications that may be running and make certain the camera is not connected to the computer.
- 2** On Windows 95 OSR2.1 and Windows 98, press Ctrl+Alt+Delete to display the “Close Program” window.
- 3 End Task** all items listed except Explorer and Systray.  
Note: This includes any antivirus applications.
- 4** Place the DVC325 Software CD into the CD-ROM drive.

Note: If Auto Play is enabled in the Windows 95 or 98 environments, the first “Installation” window automatically will appear within a few seconds. If Auto Play is not enabled, select Run from the Start menu and in the Run dialog box type the drive letter that contains the CD followed by `: \setup`.

*Example* **d: \setup**

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- 
- 5 Click Install **DVC325 Software** to install the software.

Note: Information on all the software is included on the DVC325 Software CD in the ReadMe file or the Help files for each application.



- 6 To install the additional software applications provided on the DVC325 Software CD, repeat steps 1 through 4 and select from the available applications.

- PRESTO! VIDEOWORKS software
- PRESTO! MR. PHOTO software
- Microsoft NETMEETING software
- ADOBE ACROBAT READER software

- 7 To register the camera, click Register **DVC325 On-Line**.

You can also register the camera by using:

- [www.kodak.com/go/register](http://www.kodak.com/go/register)
- the registration card enclosed with the camera

- 8 When all installations have been completed, click **Exit** and remove the DVC325 Software CD from the CD-ROM drive. Store the CD in a safe place.

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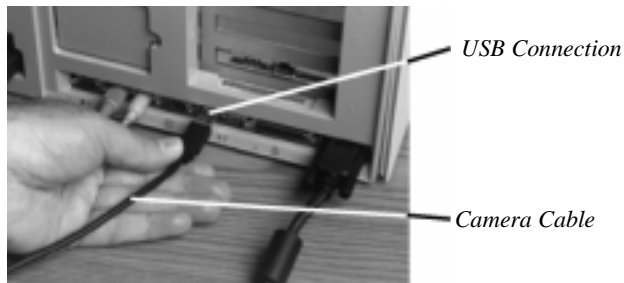
## Connecting the Camera

Once the software is installed on the computer, connect the DVC325 to the computer.

Caution: Do **not** connect the camera before installing the software

To connect the camera:

- 1 Connect the camera cable from the camera to the USB connection on the computer.



- 2 The computer operating system automatically displays the following message when it detects the camera: “Unknown device.... Searching for file.” Wait until the computer loads the necessary drivers and the “Unknown device...” message disappears.

Note: When using Windows 98, you may need to insert the Windows 98 CD into the CD-ROM drive. If you do not have a Windows 98 CD for the computer, the computer manufacturer has already installed the contents of the CD on the hard drive.

## Adjusting the Monitor

To view pictures from the DVC325, you may need to use the computer Control Panel settings to adjust the display properties for the monitor colors (24 or 16 bit True Color) and the screen area (600 x 800 or higher).

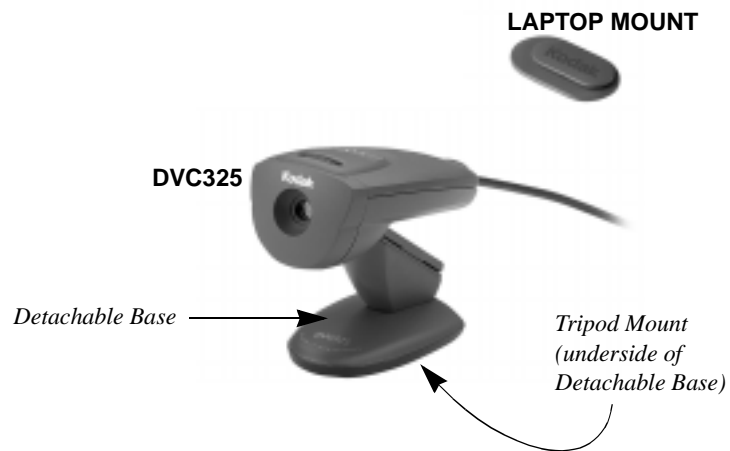
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## Camera Mount Locations

The camera can be used on a laptop or hand-held as well as being attached to a computer, placed on a table or mounted on a tripod.

- 1** Remove the detachable base for hand-held or laptop mount operation.
- 2** Attach the laptop mount to a laptop PC or monitor.
- 3** Attach the camera to the mount for added flexibility.



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# *Capturing Pictures and Videos*

## **Software Applications**

The KODAK DVC325 Digital Video Camera package includes these software applications:

PRESTO! VIDEOWORKS software by NewSoft Inc.

PRESTO! MR. PHOTO software by NewSoft Inc.

NETMEETING software by Microsoft Corporation

KODAK TWAIN Acquire software

ADOBE ACROBAT READER

## **Software Overviews**

The DVC325 is designed for use with the PRESTO! software applications or NETMEETING software. Together, the camera and these software applications make it easy to:

- capture still pictures or record, edit, and enhance video clips with sound (using PRESTO! VIDEOWORKS)
- capture still pictures, create film rolls, print catalogs and send e-mail (using PRESTO! MR. PHOTO)
- hold a video conference (using NETMEETING) and communicate with one or more people while sending video, audio, text or graphics
- import still images into your favorite photo imaging software, using the TWAIN Acquire software
- read the software manuals provided with the software applications (using ADOBE ACROBAT READER)

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## PRESTO! VIDEOWORKS Software

PRESTO! VIDEOWORKS makes it easy for you to capture, edit, enhance, customize and share video clips and still pictures. You can create your own home videos, business presentations, homework projects, and more. You can apply special effects, text captions and audio effects.

To begin, all you have to do is capture a video sequence or a still image with the DVC325. You can combine video sequences, add transition effects, and add audio sequences.

You can add headlines, scrolling credits, moving text along a defined path, and special video effects like swirls, ripples, and mosaics. For audio special effects, you can use echo, amplitude, and fade in/out.



To launch PRESTO! VIDEOWORKS,

- 1** Select **Start**.
- 2** Select **Programs**.
- 3** Select **Presto! VideoWorks**.
- 4** Select **Presto! VideoWorks** again.

To use the DVC325 with PRESTO! VIDEOWORKS,

- 1** Select **Capture**.
- 2** Select **Select Image Source**.
- 3** Select **DVC325**.



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Note: If the DVC325 is the only camera on your system or it is the last one you used, it will become the default and the only option that is displayed.

To capture a still image using the DVC325 with PRESTO! VIDEOWORKS,

**1** Select **Capture**.

**2** Select **Acquire Image**

-or-

**1** Select the camera icon instead of Steps 1 and 2 (**Capture** and **Acquire Image**).

To capture a Video Sequence,

**1** Select **View**.

**2** Select the **Video Viewer**

-or-

**1** Select the video camera icon instead of Steps 1 and 2 (**View** and **Video Viewer**).

Then select:

- Single Frame Capture
- Multiple Frame Capture
- or-
- Sequence Capture

These are several of the key features that get you started with PRESTO! VIDEOWORKS. For additional features and functions, consult the *Presto! VideoWorks User's Guide* included on the DVC325 Software CD.

## PRESTO! MR. PHOTO Software

PRESTO! MR. PHOTO software allows you to capture, edit, enhance, organize, print and share still pictures. The *Presto! Mr. Photo User's Guide* on the DVC325 Software CD takes you step-by-step through the process of creating film rolls, printing and organizing pictures, and more. You can store them by "rolls," date or title. You can drag-and-drop photos to the application bar and then create photo masterpieces. You can also drag-and-drop photos to the e-mail icon (the mailbox) and send them to family and friends. You can add photos from the DVC325, floppy disks or PhotoCDs, or download them from KODAK PHOTONET online. After that, simply use the easy-to-use *Presto! Mr. Photo User's Guide*.



To launch PRESTO! MR. PHOTO software,

- 1** Select **Start**.
- 2** Select **Programs**.
- 3** Select **Presto! Mr. Photo**.
- 4** Select **Presto! Mr. Photo** again.

To use the DVC325 with PRESTO! MR. PHOTO software,

- 1** Select **Input**
  - 2** Select **Digital Camera Input Setting**
  - 3** Select **DVC325**.
- or-
- 1** Select the camera icon instead of Steps 1, 2, and 3 (**Input**, **Digital Camera Input Setting**, and **DVC325**).

Notes:

- If the DVC325 is the only camera on your system or it is the last one you used, it will become the default and the only option that is displayed.
- The Input option allows you to get pictures from other digital cameras.
- The Video Preview allows you to capture a still photo whenever you wish.

These are several of the key features that get you started with PRESTO! MR. PHOTO software. For additional features and functions, consult the *Presto! Mr. Photo User's Guide* included on the DVC325 Software CD.

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## Microsoft NETMEETING Software

Use NETMEETING software to hold a video conference with others over the Internet. All participants must have NETMEETING software installed on their computers and a camera to “view” the other parties.



To launch NETMEETING software,

- 1 Select **Start**
- 2 Select **NetMeeting**.

To use the DVC325 with NETMEETING software,





- 1 Click **Current Call** to display two video windows.
- 2 Click **Play** on the My Video window to view your own live video.  
If your video image does not appear, select **Video** on the Tools pull-down menu. Then select **Detach My Video** and repeat step 2. If your video still does not appear, reboot the computer and go back to step 1.
- 3 Click **Call** to view the Call window.
- 4 Specify the e-mail address of the person you are calling or the computer name or the network address of the computer and click **Call**.
- 5 The person you are calling must have NETMEETING open and must select **Accept** when called. This will start the video conference.
- 6 When the video conference is over, right-click on the NETMEETING icon to completely exit from the application. If you do not, NETMEETING will run in the background and make the camera unavailable for use by other applications.
  - If several people are involved in the video conference, only two people at a time may see each other.
  - For further information on using NETMEETING or establishing a video conference call, consult the Help menu available from the application.

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## KODAK TWAIN Acquire Software



KODAK TWAIN Acquire software acts as an interpreter between the camera and the software applications. It allows them to talk to each other. Without the TWAIN Acquire software the DVC325 cannot acquire images with software applications such as PRESTO! MR. PHOTO. TWAIN Acquire software allows you to capture a picture and transfer it to any TWAIN-compliant software application. The TWAIN Acquire software displays the video preview on the computer with 6 buttons along the left margin of the TWAIN.

|   |  |
|---|--|
|    | <p>“Take a Picture.” Use this button to capture a still picture.</p>   |
|    | <p>“Play.” Use this button to restart the program after the Pause button has been used.</p>  |
|   | <p>“Pause.” This button stops the video preview, the same way that a “Pause” button works on a VCR.</p> <p>Note: While the video is in the Pause mode the “Take a Picture” button is disabled.</p> |
|  | <p>“Video Size.” This button allows adjustment of the video size.</p> <p>Note: The resolution will increase the larger you make the picture. A lower resolution provides a faster frame rate.</p>  |

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|  |  |
|--|--|
|   | <p>“Image Process.” This button offers image adjustments. Each of the Image Process items listed below can be adjusted using a slide bar control or reset to a default.</p> <ul style="list-style-type: none"><li>• brightness</li><li>• contrast</li><li>• hue</li><li>• saturation</li><li>• sharpness</li><li>• white balance</li><li>• gamma</li></ul> |
|  | <p>“Exit.” Use this button to exit from the TWAIN Acquire software.</p>  |

### Acquiring a Picture Using the DVC325 and the KODAK TWAIN Acquire Software

- 1** Set the Video Size to the desired size.
- 2** Use the Image Process sliders to adjust the Brightness and Contrast; or use the automatic settings.
- 3** Adjust the Hue and Saturation sliders or use the automatic adjustments.
- 4** When the picture is ready, press on the camera shutter button or use the TWAIN software **Capture** button.

The image that was on the screen becomes a captured still photo.

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## Using Your Own Imaging Applications

The following three steps describe how to use the DVC325 with other TWAIN-compliant applications such as ADOBE PHOTOSHOP, Microsoft PICTURE IT!, and other applications. To open the TWAIN Acquire software from another TWAIN-compliant application:

- 1** Select **START**, then **Programs**, then **(your application)** and open the application.
- 2** Select **TWAIN Source** (on many applications this is available from the “File” menu).
- 3** Select **Camera** as the source.

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# *Taking Better Pictures*

*Better Pictures*

You can improve the quality of your pictures by following some simple hints about:

- Steadiness and Composition
- Lighting
- Color balance

## **Steadiness and Composition**

- Mount the camera on a steady surface such as the computer or a desk. You can also use a standard tripod to keep the camera stable.
- Position the subject in the center of the image area.

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## Lighting

Follow these lighting hints to capture quality pictures and videos:

- Use adequate amounts of light

Lighting conditions vary depending on wall color, the use of lamp shades, and many other factors. Use the following table for lighting guidelines.

| Light Type  | Good<br>(100 lux) | Very Good<br>(200 lux) | Excellent<br>(400 lux) |
|---|-------------------|------------------------|------------------------|
| 100W incandescent   | 7 ft.*            | 4 ft.*                 | 3 ft.*                 |
| 40W incandescent  | 3 ft.*            | 2 ft.*                 | --                     |
| 34W Cool White Deluxe Fluorescent   | 8 ft.*            | 5 ft.*                 | 3 ft.*                 |
| *This is the recommended distance when pointing a desk lamp (with a reflector and no shade) at the subject. If you use another type of lamp, move it closer to the subject. |                   |                        |                        |

- Place the lights behind and near the camera so they shine toward the subject
- Do not mix light types (for example, fluorescent and incandescent, or incandescent and daylight)

## Color Balance

The DVC325 has automatic and manual color balance options. When Auto White Balance is selected from the “Image Process” menu of the TWAIN Aquire software, the software automatically adjusts the colors for the current lighting conditions. If the resulting color is not satisfactory, you can manually adjust the color balance.

Move the Hue slider in the “Image Process” menu until the image looks correct.

Note: The AutoWhite balance feature must be turned off.



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# *Troubleshooting and Maintenance*

## **Troubleshooting**

If you are having problems with your KODAK DVC325 Digital Video Camera, or are having trouble viewing images from your DVC325, refer to the following table for possible solutions.

| <b>Problem</b>                          | <b>Cause</b>   | <b>Solution</b>   |
|---|--|---|
| The camera is not capturing any images. | No power is coming to the USB port.                          | Refer to the manual for your specific computer. Run the System Setup for the computer immediately after a restart and verify that the USB port is enabled. If you are uncertain how to do this, please contact the computer manufacturer. |
|   | The camera is not fully plugged into the USB port.           | <ul style="list-style-type: none"><li>• Unplug the camera and then plug it in again.</li><li><b>or</b></li><li>• Reboot the computer with the camera plugged in.</li></ul>  |
|   | The computer does not detect the camera.                     | <ul style="list-style-type: none"><li>• Unplug the camera and plug it in again.</li><li><b>or</b></li><li>• Reboot the computer with the camera plugged in.</li></ul>   |
|   | The wrong USB driver software is installed on your computer. | Contact the manufacturer of the computer to obtain the proper or the updated USB driver software.   |
|   | The USB port is not enabled.                                 | Refer to the manual for your specific computer. Run the System Setup for the computer immediately after a restart and verify that the USB port is enabled. If you are uncertain how to do this, please contact the computer manufacturer. |

| Problem   | Cause  | Solution  |
|---|--|---|
| The camera is not capturing any images.<br>(continued). | The USB port may be in conflict with other interfaces. For example, the port may have an interrupt level conflict with a sound, network, or graphics card. | <ol style="list-style-type: none"> <li><b>1</b> Double-click the <b>System</b> icon in the control panel.</li> <li><b>2</b> Click the <b>Device Manager</b> tab and verify that “Universal Serial Bus Controller” is listed.</li> <li><b>3</b> If the Universal Serial Bus Controller is not listed, the USB port is not enabled. Run the System Setup for the computer immediately after a restart and verify that the USB port is enabled. If you are uncertain how to do this, please contact the computer manufacturer.</li> <li><b>4</b> If the Universal Serial Bus Controller is listed with a !, there is a problem with the USB port. Select <b>Properties</b> to see what the problem is and then contact the computer vendor.</li> </ol> |
|   | “Unable to connect camera” message appears.  | <ul style="list-style-type: none"> <li>• Unplug the camera and then plug it in again.</li> <li style="text-align: center;"><b>or</b></li> <li>• Reboot the computer with the camera connected.</li> <li style="text-align: center;"><b>or</b></li> <li>• Use the computer’s Add/Remove Program option to remove the DVC325 software and then re-install the DVC325 software.</li> </ul>   |
| Still pictures are blurry.                              | The subject is moving too fast for the shutter speed, the camera is being moved while taking the picture, or the manual focus is set incorrectly.          | <ul style="list-style-type: none"> <li>• Rotate the focus wheel on the camera until the image is sharp.</li> <li style="text-align: center;"><b>or</b></li> <li>• If you are in low light, place the camera in its base and on a stable surface. Take pictures by using the mouse and the software application instead of pressing the shutter button on the camera. Make certain the subject is not moving rapidly.</li> </ul>   |

|   |   |   |
|---|---|---|
| Pictures or videos are too dark.        | There is not enough light or the auto exposure is keying in on a bright area of the scene.  | <ul style="list-style-type: none"> <li>• Remove the light on the subject.</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>• Remove any bright light sources from the scene.</li> </ul>   |
| Pictures or Videos are too light.       | There is too much light or the auto exposure is keying on a dark area of the scene.   | Decrease the amount of light in the scene.  |
| Pictures or Videos are noisy or grainy. | There is not enough light.  | <ul style="list-style-type: none"> <li>• Increase the light on the subject.</li> </ul> <p><b>or</b></p> <ul style="list-style-type: none"> <li>• Select a Finished Size for the pictures or videos which is smaller than the maximum available.</li> </ul>  |
| The image has strange coloring.         | In extreme low light or bright light, or changing lighting conditions, the Auto White Balance can fail to provide the best results. | If the Auto White Balance does not correct itself within 30 seconds, correct the colors by using the <b>Hue</b> slider in the “Device Settings” window under the “Image Process” button (Windows ‘98) (or the <b>Hue</b> slider in the “Settings” option under “Video Settings” on Windows ‘95).                        |
| The image is too light or too dark.     | When moving the camera between extreme low light and extreme bright light, the Auto Exposure may fail to provide the best results.  | If the Auto Exposure does not correct itself within 30 seconds, change the exposure manually by adjusting the <b>Brightness</b> slider in the “Device Settings” window under the “Image Process” button (Windows ‘98) (or the <b>Brightness</b> slider in the “Settings” option under “Video Settings” on Windows ‘95). |

|  |   |  |
|--|---|--|
| No image appears or the image is just a mix of colors.   | There is not enough band-width available for the USB bus to transfer video data without errors. | <ol style="list-style-type: none"> <li><b>1</b> Double-click the <b>System</b> icon on the Control Panel.</li> <li><b>2</b> Click the <b>Performance</b> tab.</li> <li><b>3</b> Click the <b>Graphics</b> button.</li> <li><b>4</b> Move the <b>Hardware Acceleration</b> slider to the left to reduce the amount of acceleration.</li> <li><b>5</b> Reboot the computer and try the camera again.</li> </ol> <p>You may also want to contact your PCI card manufacturer to verify that you have the latest driver for the card and that the card is fully Windows 95 or Windows 98 compliant.</p> |
| The response to the application picture selection during a capture is slow.<br><b>or</b><br>You lose the camera communication during the use of the application. | There is not enough band-width available for the USB bus to transfer video data without errors. | <ol style="list-style-type: none"> <li><b>1</b> Double-click the <b>System</b> icon on the Control Panel.</li> <li><b>2</b> Click the <b>Performance</b> tab.</li> <li><b>3</b> Click the <b>Graphics</b> button.</li> <li><b>4</b> Move the <b>Hardware Acceleration</b> slider to the left to reduce the amount of acceleration.</li> <li><b>5</b> Reboot the computer and try the camera again.</li> </ol> <p>You may also want to contact the PCI card manufacturer to verify that you have the latest driver for the card and that the card is fully Windows 95 or Windows 98 compliant.</p>  |
| The video appears to be “dropping” or losing frames.   | The CPU in the computer is not powerful enough for the selected camera mode.                    | <ul style="list-style-type: none"> <li>• Change to a lower frame rate.</li> <li><b>or</b></li> <li>• Close some software applications to free up memory and CPU power.</li> </ul>  |

| Problem   | Cause   | Solution   |
|---|---|--|
| The video appears to be “dropping” or losing frames.  | The CPU in the computer is not powerful enough for the selected camera mode.  | <ul style="list-style-type: none"> <li>• Change to a lower frame rate.</li> <li><b>or</b></li> <li>• Close some software applications to free up memory and CPU power.</li> <li><b>or</b></li> <li>• On the “Camera Setup” window, set the Finished Size for videos to 160 x 120.</li> </ul> |
| The captured videos appear slower than expected or the camera is “dropping” or losing frames. | The CPU in the computer is not powerful enough for the selected camera mode or the camera is set to a low frame rate. | <ul style="list-style-type: none"> <li>• Change to a higher frame rate.</li> <li><b>or</b></li> <li>• Select a Finished Size for the video which is smaller than the maximum available.</li> </ul>   |

## Maintenance and Safety

### Maintenance

- To maintain the performance of your DVC325, avoid exposing it to moisture and extreme temperatures.
- Clean the outside of the DVC325 by wiping it with a clean, dry cloth.

Never use:

- Harsh or abrasive cleaners or organic solvents on the camera or any of its parts.
- Cleaning solutions, unless they are designed specifically for camera lenses.
- Chemically treated eyeglass lens tissue to wipe the camera lens because it may scratch the lens.

Never touch the lens with your finger. To clean the lens:

- 1 Blow gently on the lens to remove dust and dirt.
- 2 Moisten the lens by breathing lightly on it.
- 3 Wipe the lens gently with a soft, lint-free cloth or an untreated lens-cleaning tissue.

### Safety

- Use of controls, adjustments, or procedures other than those specified in this manual may result in damage to the camera.
- Never disassemble or touch the inside of the DVC325 camera. This will void your warranty and may damage your camera.



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# *Help and Service*

Help with your KODAK DVC325 Digital Video Camera is available from several sources.

- In the *Troubleshooting Problems* chapter.
- The place where you purchased the camera
- Online services
- FAX information
- The application software companies
- KODAK customer support

## **Online Services**

Web contacts for Kodak are:

|                |   |
|----------------|---|
| World Wide Web | <a href="http://www.kodak.com">http://www.kodak.com</a><br>(click on Service and Support) |
| America Online | (keyword) KODAK   |
| CompuServe     | GO KODAK  |

## **FAX Information**

Kodak offers automated support for digital imaging products and services. Use the following phone numbers to call and request product information by FAX.

|               |                   |
|---------------|-------------------|
| U.S. & Canada | 1-800-295-5531    |
| Europe        | 44-0-131-458-6962 |
| U.K.          | 44-0-131-458-6962 |

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## Application Software Support Companies

For application-specific technical assistance, use the software support contacts listed below.

|  |  |
|--|--|
| PRESTO! MR. PHOTO software<br>and<br>PRESTO! VIDEOWORKS software | <ul style="list-style-type: none"><li>• U.S.A.<br/>NewSoft America Inc.<br/>4113 Clipper Court<br/>Fremont, CA 94538<br/>Tel: 510-445-8606<br/>FAX: 510-445-8601<br/>Technical Support Hot Line: 1-510-445-8616<br/>e-mail: tech@newsoftinc.com<br/>web (NewSoft Support page):<br/><a href="http://www.newsoftinc.com/nsiweb/support/support.html">http://www.newsoftinc.com/nsiweb/support/support.html</a></li><li>• Germany<br/>MitCom Neue Medien GmbH<br/>Anglestrasse 6<br/>D-80339 München, Germany<br/>Tel: (49) 089 500 332 0<br/>FAX: (49) 089 500 332 22<br/><a href="http://www.mitcom.de">http://www.mitcom.de</a></li><li>• France<br/>InfoTrade France<br/>Centre d'activités de l'Ourcq<br/>45, rue Delizy 93692 Pantin, France<br/>Tel: (33) 01 4810 7560<br/>FAX: (33) 01 4810 7555<br/><a href="http://www.club-Internet.fr">http://www.club-Internet.fr</a></li></ul> |
| NETMEETING and ACROBAT<br>READER software                        | Use the online addresses provided by the applications in their Help menus.   |



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## KODAK Customer Support

If you have questions concerning the operation of the DVC325, you may speak to a KODAK customer support representative. Have the DVC325 connected to the computer, its serial number ready, and be at the computer with the computer turned on when you call. Use the number listed below for your location.

To obtain warranty repair service, contact your local KODAK representative at the same numbers listed below.

**U.S. and Canada**—call toll free, 1-888-375-6325, between the hours of 9:00 a.m. and 8:00 p.m. (Eastern Standard Time) Monday through Friday.

**Outside the U.S. and Canada**—call the Kodak Digital Imaging Support Centre numbers listed below. In **Europe**, you can also call the U.K. toll line, 44-131-458-6714, between the hours of 09.00 and 17.00 (GMT/CET) Monday through Friday.

| Country or Region  | Help Number    | FAX Number        |
|--------------------|----------------|-------------------|
| Argentina          | 54-1-808-300   | 54-1-808-3328     |
| Australia          | 1-800-674-831  | 61-3-9353-2092    |
| Austria            | 0179-567-357   | 44-0-131-458-6962 |
| Belgium            | 02-713-14-45   | 44-0-131-458-6962 |
| Brazil             | 0-800-15-0000  | 55-12-331-8571    |
| Caribbean          | 78-7-757-5500  | 78-7-757-8760     |
| Chile              | 56-2-697-2000  | 56-2-697-0310     |
| China—Shanghai     | 8621-64720888  | 8621-64726582     |
| China—Beijing      | 8610-63471155  | 8610-63475641     |
| Colombia           | 57-1-629-0266  | 57-1-629-0673     |
| Denmark            | 3-848-71-30    | 44-0-131-458-6962 |
| Dominican Republic | 809-563-1252   | 809-563-1264      |
| Egypt              | 20-2-394-2205  | 20-2-393-1119     |
| Eire (Ireland)     | 01-407-3054    | 44-0-131-458-6962 |
| Finland            | 0800-117056    | 44-0-131-458-6962 |
| France             | 01-55-1740-77  | 44-0-131-458-6962 |
| Germany            | 069-5007-0035  | 44-0-131-458-6962 |
| Greece             | 00800-44125605 | 44-0-131-458-6962 |
| Hong Kong          | 852-2564-9777  | 852-2564-9753     |
| Hungary            | 36-1-269-71-17 | 36-1-269-71-13    |
| India              | 91-22-617-5823 | 91-22-617-6004    |
| Ireland            | 1-800-409391   | 44-0-131-458-6962 |

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| Country or Region | Help Number     | FAX Number        |
|-------------------|-----------------|-------------------|
| Italy             | 02-696-334-52   | 44-0-131-458-6962 |
| Japan             | 81-3-5488-2390  | 81-3-5488-4512    |
| Korea             | 82-2-708-5400   | 82-2-708-5500     |
| Latin America     | 1-305-267-4700  | 1-305-267-4780    |
| Lebanon           | 961-1-883822    | 961-1-881726      |
| Malaysia          | 60-3-757-2722   | 60-3-755-5919     |
| Mexico            | 52-5-449-4300   | 52-5-449-4400     |
| Middle East       | 971-4-444-910   | 971-4-447-059     |
| Netherlands       | 020-346-9372    | 44-0-131-458-6962 |
| New Zealand       | 0800-500-135    | 64-9-302-8637     |
| Norway            | 23-16-21-33     | 44-0-131-458-6962 |
| Panama            | 52-3-678-6200   | 52-3-678-6210     |
| Peru              | 51-1-224-8610   | 51-1-224-8605     |
| Philippines       | 63-2-810-0331   | 63-2-816-6718     |
| Portugal          | 351-1-4149-500  | 351-14194-321     |
| Russia            | 7-095-929-9166  | 7-095-929-9170    |
| Singapore         | 65-470-9875     | 65-479-8397       |
| South Africa      | 27-11-804-2852  | 27-11-804-5013    |
| Spain             | 91-749-76-53    | 44-0-131-458-6962 |
| Sweden            | 08-587-704-21   | 44-0-131-458-6962 |
| Switzerland       | 01-838-53-51    | 44-0-131-458-6962 |
| Taiwan            | 886-2-893-8210  | 886-2-895-1069    |
| Thailand          | 66-2-271-3040   | 66-2-279-5073     |
| Turkey            | 90-216-342-3332 | 90-216-343-6743   |
| U.K.              | 0870-2430270    | 44-0-131-458-6962 |
| Uruguay           | 59-2-92-0473    | 59-2-92-1796      |
| Venezuela         | 58-2-903-1111   | 58-2-943-2081     |

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# *Warranty and Regulatory Information*

## **Warranty**

### Warranty Time Period

Kodak warrants the KODAK DVC325 Digital Video Camera (the DVC325) to be free from malfunctions and defects in both materials and workmanship for one year from the date of purchase.

### Warranty Repair Coverage

This warranty will be honored within the geographical location that the product was purchased.

If the equipment does not function properly during the warranty period due to defects in either materials or workmanship, Kodak will, at its option, either repair or replace the equipment without charge, subject to the conditions and limitations stated herein. Such repair service will include all labor as well as any necessary adjustments and/or replacement parts.

If replacement parts are used in making repairs, these parts may be remanufactured, or may contain remanufactured materials. If it is necessary to replace the entire system, it may be replaced with a remanufactured system.

Kodak will also provide telephone assistance during the warranty period.

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## Limitations

WARRANTY SERVICE WILL NOT BE PROVIDED WITHOUT A DATED PROOF OF PURCHASE. PLEASE RETURN THE WARRANTY REGISTRATION CARD WITHIN 30 DAYS OF PURCHASE.

THIS WARRANTY BECOMES NULL AND VOID IF YOU FAIL TO PACK YOUR DVC325 CAMERA IN A MANNER CONSISTENT WITH THE ORIGINAL PRODUCT PACKAGING AND DAMAGE OCCURS DURING PRODUCT SHIPMENT.

THIS WARRANTY DOES NOT COVER: CIRCUMSTANCES BEYOND KODAK'S CONTROL; SERVICE OR PARTS TO CORRECT PROBLEMS RESULTING FROM THE USE OF ATTACHMENTS, ACCESSORIES OR ALTERATIONS NOT MARKETING BY KODAK; SERVICE REQUIRED AS THE RESULT OF UNAUTHORIZED MODIFICATIONS OR SERVICE; MISUSE, ABUSE; FAILURE TO FOLLOW KODAK'S OPERATING, MAINTENANCE OR REPACKAGING INSTRUCTIONS; OR FAILURE TO USE ITEMS SUPPLIED BY KODAK (SUCH AS ADAPTERS AND CABLES).

KODAK MAKES NO OTHER WARRANTIES, EXPRESS, IMPLIED, OR OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE FOR THIS EQUIPMENT OR SOFTWARE.

REPAIR OR REPLACEMENT WITHOUT CHARGE ARE KODAK'S ONLY OBLIGATION UNDER THIS WARRANTY. KODAK WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM THE PURCHASE, USE, OR IMPROPER FUNCTIONING OF THIS EQUIPMENT REGARDLESS OF THE CAUSE. SUCH DAMAGES FOR WHICH KODAK WILL NOT BE RESPONSIBLE INCLUDE, BUT ARE NOT LIMITED TO, LOSS OF REVENUE OR PROFIT, DOWNTIME COSTS, LOSS OF USE OF THE EQUIPMENT, COST OF ANY SUBSTITUTE EQUIPMENT, FACILITIES OR SERVICES, OR CLAIMS OF YOUR CUSTOMERS FOR SUCH DAMAGES.

Depending on your geographical location, some limitations and exclusions may not apply.

Unless a specific KODAK warranty is communicated to the purchaser in writing by a KODAK company, no other warranty or liability exists beyond the information contained above, even though defect, damage or loss may be caused by negligence or other acts.

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## How to Obtain Service

To obtain warranty repair service, contact KODAK service at the phone numbers listed in Chapter 6, Help and Service.

## Regulatory Information

### FCC Compliance and Advisory

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed or used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) reorient or relocate the receiving antenna; 2) increase the separation between the equipment and the receiver; 3) connect the equipment to an outlet on a circuit different from that to which the receiver is connected; 4) consult the dealer or an experienced radio/TV technician for additional suggestions.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulation.

Warranty

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### Canadian DOC Statement

**DOC Class B Compliance**—This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the radio interference regulations of the Canadian Department of Communications.

**Observation des normes-Class B**—Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Classe B prescrites dans les règlements sur le brouillage radioélectrique édictés par le Ministère des Communications du Canada.

### UL Regulatory Statement

For use only with UL listed PC.